

# FCC RF EXPOSURE REPORT

## FCC ID: 2AR2STAFS1GC

**Project No.** : 2201C013  
**Equipment** : Wireless Home Speaker  
**Brand Name** :  PHILIPS or  
**Test Model** : TAFS1GC  
**Series Model** : TAFS1, TAFS1/10, TAFS1GC/10, TAFS1/37, TAFS1GC/37, TAFS1/98, TAFS1GC/98, TAFS1xx/yy (xx=A-Z or blank, yy=00-99 or blank for country code)  
**Applicant** : MMD Hong Kong Holding Limited  
**Address** : Unit 1006, 10th Floor, C-Bons International Center, 108 Wai Yip Street, Kwun Tong, Kowloon, HongKong  
**Manufacturer** : MMD Hong Kong Holding Limited  
**Address** : Unit 1006, 10th Floor, C-Bons International Center, 108 Wai Yip Street, Kwun Tong, Kowloon, HongKong  
**Factory** : Guoguang Electric Co.,Ltd.  
**Address** : No.8 Jinghu Road, Xinya Street, Huadu Reg, Guangzhou, China  
**Date of Receipt** : Jan. 19, 2022  
**Date of Test** : Jan. 19, 2022 ~ Mar. 11, 2022  
**Issued Date** : Apr. 19, 2022  
**Report Version** : R00  
**Test Sample** : Engineering Sample No.: DG2022011384-1  
**Standard(s)** : FCC Guidelines for Human Exposure IEEE C95.1 & FCC Part 2.1091  
FCC Title 47 Part 2.1091

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

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TESTING CERT #5123.02

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**REPORT ISSUED HISTORY**

| Report No.          | Version | Description      | Issued Date   | Note  |
|---------------------|---------|------------------|---------------|-------|
| BTL-FCCP-8-2201C013 | R00     | Original Report. | Apr. 19, 2022 | Valid |

## 1. TEST FACILITY

The test facilities used to collect the test data in this report is at the location of No. 3 Jinshagang 1st Rd. Shixia, Dalang Town Dongguan City, Guangdong 523792 People's Republic of China.

BTL's Registration Number for FCC: 357015

BTL's Designation Number for FCC: CN1240

## 2. MPE CALCULATION METHOD

Calculation Method of RF Safety Distance:

$$S = \frac{PG}{4\pi^2} = \frac{EIRP}{4\pi^2}$$

where:

S = power density

P = power input to the antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna

Table for Filed Antenna: .

For BT Bluetooth Module:

| Ant. | Brand                                                                              | P/N      | Antenna Type | Connector | Gain (dBi) |
|------|------------------------------------------------------------------------------------|----------|--------------|-----------|------------|
| 1    |  | EAN00229 | PCB          | I-PEX     | 5.25       |

Note: The antenna gain is provided by the manufacturer.

For 2.4GHz Ambilight Module:

| Ant. | Brand                                                                               | P/N      | Antenna Type | Connector | Gain (dBi) |
|------|-------------------------------------------------------------------------------------|----------|--------------|-----------|------------|
| 1    |  | EAN00228 | PCB          | I-PEX     | 2.69       |

Note: The antenna gain is provided by the manufacturer.

For 5GHz Ambilight Module:

| Ant. | Brand                                                                               | P/N      | Antenna Type | Connector | Gain (dBi) |
|------|-------------------------------------------------------------------------------------|----------|--------------|-----------|------------|
| 1    |  | EAN00228 | PCB          | I-PEX     | 5.69       |

Note: The antenna gain is provided by the manufacturer.

For 2.4GHz Play-Fi Module:

| Ant. | Brand                                                                               | P/N      | Antenna Type | Connector | Gain (dBi) |
|------|-------------------------------------------------------------------------------------|----------|--------------|-----------|------------|
| 1    |  | EAN00227 | PCB          | I-PEX     | 4.21       |

Note: The antenna gain is provided by the manufacturer.

For 5GHz Play-Fi Module:

| Ant. | Brand                                                                               | P/N      | Antenna Type | Connector | Gain (dBi) |
|------|-------------------------------------------------------------------------------------|----------|--------------|-----------|------------|
| 1    |  | EAN00226 | PCB          | I-PEX     | 4.91       |

Note: The antenna gain is provided by the manufacturer.

### 3. TEST RESULTS

| Tune up tolerance(dBm) |                  |        |                |        |
|------------------------|------------------|--------|----------------|--------|
| Bluetooth Module       | Ambilight Module |        | Play-Fi Module |        |
| BT                     | 2.4GHz           | 5GHz   | 2.4GHz         | 5GHz   |
| ≤3.50                  | ≤17.50           | ≤14.50 | ≤15.50         | ≤15.00 |

For BT \_Bluetooth Module:

| Antenna Gain (dBi) | Antenna Gain (numeric) | Max. Peak Output Power (dBm) | Max. Peak Output Power (mW) | Power Density (S) (mW/cm <sup>2</sup> ) | Limit of Power Density (S) (mW/cm <sup>2</sup> ) | Test Result |
|--------------------|------------------------|------------------------------|-----------------------------|-----------------------------------------|--------------------------------------------------|-------------|
| 5.25               | 3.3497                 | 3.50                         | 2.2387                      | 0.00149                                 | 1                                                | Complies    |

For 2.4GHz \_Ambilight Module:

| Antenna Gain (dBi) | Antenna Gain (numeric) | Max. Output Power (dBm) | Max. Output Power (mW) | Power Density (S) (mW/cm <sup>2</sup> ) | Limit of Power Density (S) (mW/cm <sup>2</sup> ) | Test Result |
|--------------------|------------------------|-------------------------|------------------------|-----------------------------------------|--------------------------------------------------|-------------|
| 2.69               | 1.8578                 | 17.50                   | 56.2341                | 0.02079                                 | 1                                                | Complies    |

For 5GHz \_Ambilight Module:

| Antenna Gain (dBi) | Antenna Gain (numeric) | Max. Output Power (dBm) | Max. Output Power (mW) | Power Density (S) (mW/cm <sup>2</sup> ) | Limit of Power Density (S) (mW/cm <sup>2</sup> ) | Test Result |
|--------------------|------------------------|-------------------------|------------------------|-----------------------------------------|--------------------------------------------------|-------------|
| 5.69               | 3.7068                 | 14.50                   | 28.1838                | 0.02079                                 | 1                                                | Complies    |

For 2.4GHz \_Play-Fi Module:

| Antenna Gain (dBi) | Antenna Gain (numeric) | Max. Output Power (dBm) | Max. Output Power (mW) | Power Density (S) (mW/cm <sup>2</sup> ) | Limit of Power Density (S) (mW/cm <sup>2</sup> ) | Test Result |
|--------------------|------------------------|-------------------------|------------------------|-----------------------------------------|--------------------------------------------------|-------------|
| 4.21               | 2.6363                 | 15.50                   | 35.4813                | 0.01862                                 | 1                                                | Complies    |

For 5GHz \_Play-Fi Module:

| Antenna Gain (dBi) | Antenna Gain (numeric) | Max. Output Power (dBm) | Max. Output Power (mW) | Power Density (S) (mW/cm <sup>2</sup> ) | Limit of Power Density (S) (mW/cm <sup>2</sup> ) | Test Result |
|--------------------|------------------------|-------------------------|------------------------|-----------------------------------------|--------------------------------------------------|-------------|
| 4.91               | 3.0974                 | 15.00                   | 31.6228                | 0.01950                                 | 1                                                | Complies    |

**For the max simultaneous transmission MPE:**

| Ratio            |                  |                | Total   | Limit of Ratio | Test Result |
|------------------|------------------|----------------|---------|----------------|-------------|
| Bluetooth Module | Ambilight Module | Play-Fi Module |         |                |             |
| 0.00149          | 0.02079          | 0.01950        | 0.04178 | 1              | Complies    |

Note: The calculated distance is 20 cm.  
Output power including tune up tolerance.

**End of Test Report**